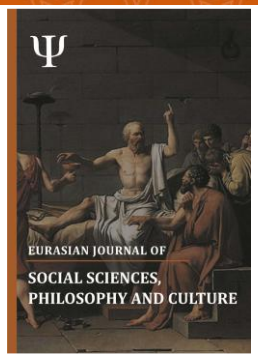
EURASIAN JOURNAL OF SOCIAL SCIENCES, PHILOSOPHY AND CULTURE
Innovative Academy Research Support Center
IF = 9.3 www.in-academy.uz/index.php/ejsspc



DIGITAL GAMIFICATION PLATFORMS IN FOREIGN LANGUAGE EDUCATION: OPPORTUNITIES AND CHALLENGES

Maparova Zukhra
PhD student
Karakalpak state university
https://doi.org/10.5281/zenodo.20841209

ARTICLE INFO

Received: 02nd June 2026
Accepted: 08th June 2026
Online: 09th June 2026

KEYWORDS

Gamification, digital platforms, foreign language education, vocabulary learning, learner motivation, educational technology, English language teaching.

ABSTRACT

The increasing integration of digital technologies into educational environments has transformed foreign language teaching and learning practices worldwide. Among contemporary educational innovations, gamification has emerged as an effective approach for enhancing learner motivation, engagement, and academic achievement. Digital gamification platforms such as Duolingo, Kahoot!, Quizizz, and Wordwall have become increasingly popular in language classrooms due to their ability to combine educational content with game-like elements. Despite their growing adoption, scholars continue to debate the pedagogical effectiveness and potential limitations of gamification in language education. Therefore, this article aims to examine the opportunities and challenges associated with the use of digital gamification platforms in foreign language education. Through a review and critical analysis of recent literature, the study highlights the pedagogical benefits of gamification, including increased learner motivation, vocabulary acquisition, classroom participation, and personalized learning. At the same time, it identifies several challenges related to technological accessibility, teacher preparedness, sustainability of learner engagement, and the risk of excessive reliance on extrinsic rewards. The findings suggest that digital gamification platforms can significantly enhance foreign language learning when implemented within a sound pedagogical framework.

Introduction

The rapid development of digital technologies has fundamentally changed educational practices in the twenty-first century. Educational institutions are increasingly adopting technology-enhanced approaches to improve learning outcomes and prepare students for participation in a digital society. Within the field of foreign language education, technological innovations have created new opportunities for

supporting language acquisition through interactive and learner-centered environments. One of the most influential developments in this regard has been the emergence of gamification. By integrating game-like mechanics into pedagogical structures, educators can leverage reward systems and real-time feedback to foster greater learner autonomy and communicative fluency (Laksanasut, 2025). Beyond these motivational benefits, the strategic implementation of elements like leaderboards and interactive tasks facilitates a structured yet immersive atmosphere that is essential for both sustained engagement and measurable improvements in linguistic proficiency (To'rayeva & Elmurodov, 2026; Zukhra, 2025).

Gamification refers to the integration of game-design elements into non-game contexts in order to increase engagement, motivation, and participation (Deterding et al., 2011). Unlike digital games developed solely for entertainment purposes, gamification utilizes specific game mechanics such as points, badges, leaderboards, challenges, and rewards to support educational objectives. Over the last decade, numerous digital platforms incorporating gamification principles have been introduced into foreign language education. Applications such as Duolingo, Kahoot!, Quizizz, and Wordwall have demonstrated considerable potential for transforming traditional language learning activities into engaging and interactive experiences. These platforms facilitate consistent practice by leveraging features such as progress tracking and virtual gifts, which supplement traditional instructional environments with autonomous 'push-to-learn' mechanisms (Nozhovnik et al., 2023). Furthermore, the adoption of these tools allows instructors to tailor instructional design by systematically selecting game-based mechanics—such as time-limited challenges or point-based leaderboards—to directly address specific learning objectives and promote deeper cognitive involvement (Çelık & Ersanlı, 2022; To'rayeva & Elmurodov, 2026). By transitioning from a teacher-centered model to a dynamic, participatory framework, these digital interventions foster a supportive environment that enhances both communicative fluency and collaborative skills (Ismailova, 2025).

The growing popularity of gamified learning environments can be explained by contemporary educational theories that emphasize learner autonomy, active participation, and meaningful engagement. According to Self-Determination Theory proposed by Ryan and Deci (2020), individuals are more likely to engage in learning activities when their psychological needs for competence, autonomy, and relatedness are satisfied. Gamification platforms often address these needs by providing immediate feedback, achievable goals, and opportunities for social interaction. Moreover, the application of these elements facilitates adaptive learning pathways, allowing for a personalized instructional experience that aligns with individual progress and proficiency levels (Laksanasut, 2025).

Despite increasing interest in gamification, the effectiveness of digital

gamification platforms remains a subject of scholarly discussion. While numerous studies report positive impacts on learner motivation and language achievement, other researchers warn that poorly designed gamification systems may prioritize entertainment over meaningful learning. Therefore, a critical examination of both opportunities and challenges associated with digital gamification platforms is necessary for understanding their role in contemporary foreign language education. This paper systematically evaluates the intersection of game-design features and instructional requirements to determine how these tools can be optimized for diverse linguistic contexts (Ahmed et al., 2025; Rodríguez-Escobar et al., 2023).

Methods

This study employed a qualitative literature review approach to examine recent developments in the application of digital gamification platforms in foreign language education. Relevant scholarly publications published between 2020 and 2025 were identified through major academic databases, including Scopus, Web of Science, ERIC, and Google Scholar. The selection criteria focused on peer-reviewed studies investigating the relationship between gamification and foreign language learning outcomes.

The collected literature was analyzed thematically to identify recurring patterns regarding the educational benefits and limitations of gamified learning environments. Particular attention was given to studies examining learner motivation, vocabulary acquisition, classroom engagement, digital literacy, and implementation challenges. Through comparative analysis of the selected studies, key themes were synthesized to provide a comprehensive understanding of current research trends.

Results and Discussion

Recent research demonstrates that digital gamification platforms offer significant opportunities for enhancing foreign language learning. One of the most consistently reported benefits is increased learner motivation. Motivation has long been recognized as a crucial factor influencing second language acquisition, and numerous studies suggest that gamified environments can positively affect learners' willingness to participate in educational activities. By incorporating game elements such as rewards, achievement badges, progress indicators, and competitive challenges, digital platforms create a sense of accomplishment that encourages continued engagement.

This sustained involvement is further reinforced by the systematic use of leaderboards and levels, which provide clear benchmarks for progress and allow learners to track their mastery of language competencies (Jane et al., 2024). These structures capitalize on the psychological drive for achievement, effectively transforming language acquisition from a static curriculum into a dynamic, milestone-oriented experience (Al-Dosakee & Özdamlı, 2021; Никипорець et al., 2024). Beyond mere engagement, these platforms promote the development of speaking fluency and grammar mastery by providing an environment where learners can practice language skills

through low-stakes, repetitive interactions (Zukhra, 2025). Furthermore, quantitative analysis reveals that vocabulary and grammar instruction remain the primary focus of these digital interventions, although research into the development of speaking skills within these frameworks currently remains underexplored (Taqdir, 2024). Additionally, while existing literature often highlights increased engagement, few studies explicitly map specific gamification mechanics to distinct learning outcomes, revealing a gap in empirical design clarity (Dehghanzadeh et al., 2019).

Furthermore, this heightened sense of self-efficacy and reduced anxiety facilitates a more inclusive classroom atmosphere, particularly for students who might otherwise struggle with conventional instructional methods (Nguyen, 2025). Moreover, the integration of collaborative features and goal-oriented tasks within these systems fosters a social environment that enhances both communicative competence and peer-to-peer interaction (Acquah & Katz, 2019). However, researchers caution that these benefits are often contingent upon the quality of instructional design, as excessive reliance on competitive leaderboards can potentially undermine collaborative learning if not balanced with meaningful pedagogical tasks (Zhang & Hasim, 2023). Additionally, the efficacy of these digital interventions is frequently linked to the strategic use of narrative structures and immediate feedback mechanisms, which sustain learner interest beyond initial extrinsic motivation (Esteban, 2024). Beyond these motivational gains, empirical evidence suggests that structured gamified pathways significantly bolster vocabulary retention and grammatical accuracy through consistent, reward-based practice (Zolfaghari et al., 2025).

Moreover, the shift toward AI-enhanced, adaptive learning systems allows for the personalization of these tasks, catering to individual differences in proficiency and learning pace (Landázuri et al., 2025; Shang, 2025). By dynamically adjusting content difficulty based on real-time performance, these intelligent systems help sustain long-term engagement while addressing the perennial challenge of learner attrition (Shen et al., 2024). Furthermore, the incorporation of these sophisticated tools facilitates a data-driven approach for educators, who can monitor student performance metrics to refine instructional strategies and ensure that game-based interventions remain aligned with specific pedagogical objectives (Thurairasu, 2022), (Alghamdy, 2023). Nonetheless, practitioners must remain vigilant regarding ethical concerns such as data privacy and the potential for algorithmic bias, which necessitate a balanced, critical implementation of these technologies. Educational platforms often aggregate vast amounts of behavioral data, raising significant concerns about the security of sensitive student information and the necessity for transparent data management practices (Zhou, 2024). Furthermore, predictive algorithms utilized in adaptive learning systems may inadvertently perpetuate existing societal inequities, as these models can mirror historical biases in

training data, potentially disadvantaging learners from diverse backgrounds or underrepresented groups (Hakimi et al., 2021; Selvam & Vallejo, 2025). Consequently, addressing these risks requires a commitment to ethical design, including robust data protection mechanisms and fairness-aware algorithms that prioritize educational equity over raw optimization metrics (Cömert, 2025). Ultimately, ensuring that gamification empowers students necessitates a collaborative, human-in-the-loop approach that treats these tools as supplements to, rather than replacements for, reflective pedagogical practice (Cömert, 2025).

In this context, it is also essential to acknowledge that the successful integration of these technologies depends heavily on adequate teacher training and the availability of digital infrastructure within diverse school environments (Korkut, 2025). Without such pedagogical readiness and equitable resource distribution, even the most sophisticated adaptive systems risk deepening the digital divide rather than ameliorating it (Samur & Cömert, 2024). Therefore, institutions must prioritize comprehensive professional development programs that equip educators to critically interpret AI-generated insights and navigate the complexities of data-driven instructional environments (Onesi-Ozigagun et al., 2024). Beyond structural and technical requirements, educators must also be prepared to address the ethical complexities of dataveillance, as the continuous monitoring of student activity can inadvertently impinge upon individual privacy and learner autonomy (Joseph & Uzondu, 2024).

Vocabulary learning appears to be particularly responsive to gamification-based approaches. Vocabulary acquisition requires repeated exposure and regular practice, both of which can be effectively supported through gamified activities. Studies conducted by Bai, Hew, and Huang (2024) indicate that learners who use gamified vocabulary-learning applications demonstrate higher levels of retention and recall compared to those using conventional instructional methods. The combination of immediate feedback and repetitive practice contributes to deeper processing of lexical items and facilitates long-term memory formation.

Moreover, the integration of AI-driven adaptive feedback further optimizes this process by tailoring the frequency and context of repetition to match the individual learner's cognitive readiness (Murphy, 2025; Salmanova, 2025). This dynamic calibration ensures that learners remain within their zone of proximal development, effectively fostering self-regulation and persistent engagement through personalized guidance.

Another important advantage of digital gamification platforms is their capacity to foster active participation. Traditional language classrooms often struggle with maintaining consistent student engagement, particularly among younger learners. Gamified activities transform routine exercises into interactive experiences that encourage learners to participate voluntarily. Competition, collaboration, and achievement systems create an

environment where students become active contributors rather than passive recipients of information.

This transition from passive reception to active involvement is further amplified by AI-generated interactive narratives, which embed target vocabulary within personalized, context-rich scenarios to enhance meaningful retrieval (Namaziandost & Çakmak, 2025). Such immersive environments capitalize on the principles of situated learning, where the contextual placement of lexical items significantly improves both breadth and depth of vocabulary acquisition (Metruk & Zimenová, 2025). Consequently, this autonomy-driven engagement encourages students to take ownership of their learning pace and strategies, bridging the gap between mere task completion and genuine lexical internalization (BOERU, 2023).

Furthermore, digital gamification platforms support personalized learning experiences. Unlike traditional classroom instruction, many digital platforms adapt tasks according to individual learner performance. Adaptive learning mechanisms allow students to progress at their own pace while receiving immediate corrective feedback. Such personalization is particularly important in language education because learners often demonstrate considerable variation in linguistic proficiency, learning styles, and motivational factors.

By leveraging visual, auditory, and kinesthetic modalities, these tools cater to diverse cognitive preferences, ensuring that students interact with content through channels that maximize their individual retention rates (Muryani & Yunus, 2024). This multi-modal approach effectively lowers the cognitive load associated with complex linguistic tasks, allowing learners to focus on communicative competence rather than rote memorization (Chen, 2024; Liu, 2024). Moreover, these authentic learning environments closely simulate real-world sociocultural interactions, which significantly reduces learner anxiety and fosters a greater inclination toward spontaneous communication (Polyzi & Moussiades, 2023).

Despite these advantages, several challenges continue to limit the effectiveness of digital gamification platforms. One frequently discussed concern involves the potential overreliance on extrinsic motivation. Although rewards and badges can initially stimulate engagement, excessive emphasis on external incentives may undermine intrinsic motivation over time. Learners may become more focused on earning points than on developing genuine language competence. Consequently, researchers emphasize the importance of aligning game elements with meaningful educational objectives.

By integrating mechanics such as quest-based learning or collaborative problem-solving, educators can steer students toward mastery-oriented goals rather than mere performance metrics (Huseinović, 2023). Furthermore, developers should incorporate narrative-driven design elements that contextualize lexical acquisition within authentic, real-world simulations, thereby shifting the focus from transactional point-collection to

substantive cognitive engagement (Khasawneh, 2023). In addition to these design considerations, addressing technical barriers such as usability issues and accessibility remains critical to ensuring that diverse student populations can engage with these platforms without experiencing cognitive overload (Alhawsawi & Alzaid, 2025).

Technological infrastructure represents another significant challenge, particularly in developing educational contexts. Effective implementation of digital gamification requires stable internet connectivity, access to appropriate devices, and technical support systems. Educational institutions with limited technological resources may encounter difficulties integrating gamified platforms into everyday teaching practices. This issue remains especially relevant in many rural and economically disadvantaged regions.

Additionally, the substantial financial burden associated with the development, deployment, and ongoing technical maintenance of such software often discourages institutions from adopting these innovative pedagogical tools (Żammit, 2022). Beyond economic constraints, the effectiveness of these applications is frequently compromised by a lack of digital literacy among both educators and students, which often leads to frustration during initial onboarding (Nguyen et al., 2023). These barriers are frequently compounded by a lack of institutional training, which hinders teachers' ability to effectively incorporate digital games into their specific pedagogical frameworks (Trinh et al., 2022; Yaccob et al., 2022). Moreover, poor integration between these digital tools and the standard curriculum often results in fragmented learning experiences that fail to provide necessary pedagogical scaffolding (Hao et al., 2023). In cases where the game elements serve as mere distractions, the focus shifts away from core educational objectives, potentially causing classroom interference and disrupting the learning environment (Dečman et al., 2022).

Teacher preparedness also plays a critical role in the successful implementation of gamification. The mere presence of technological tools does not guarantee improved learning outcomes. Teachers must possess adequate knowledge of both pedagogical principles and digital technologies to design meaningful learning experiences. Without proper training, gamification risks becoming a superficial classroom activity rather than an effective instructional strategy.

Therefore, future research must shift its focus toward establishing robust pedagogical frameworks that emphasize the role of the instructor in facilitating and guiding the learning process (Boudadi et al., 2024). Such frameworks should prioritize longitudinal studies to determine the sustainability of initial engagement gains and the long-term impact on language proficiency (Quba et al., 2024). Furthermore, investigating cross-cultural applications and individual learner characteristics is essential for developing inclusive strategies that accommodate diverse instructional environments (Benitez-Correa et al., 2025).

The findings of this review suggest that the effectiveness of digital gamification platforms depends largely on pedagogical design rather than technology alone. Successful implementation requires careful consideration of learner characteristics, educational objectives, and contextual factors. When integrated thoughtfully, gamification can serve as a powerful mechanism for supporting language development while maintaining high levels of learner engagement.

Conclusion

Digital gamification platforms have become increasingly influential within contemporary foreign language education. The literature reviewed in this study demonstrates that gamification can enhance learner motivation, facilitate vocabulary acquisition, increase classroom participation, and support personalized learning experiences. These benefits make gamification a valuable pedagogical approach for addressing many challenges associated with traditional language instruction.

However, the successful integration of gamification requires careful attention to several challenges, including technological accessibility, teacher preparedness, sustainability of learner engagement, and the balance between intrinsic and extrinsic motivation. Educational practitioners should therefore view gamification not as a replacement for sound pedagogy but as a complementary strategy capable of enriching foreign language learning environments.

Future research should focus on the development of context-specific gamification models and the evaluation of locally designed gamification platforms. Such investigations may provide valuable insights into how gamification can be adapted to different educational settings and learner populations, particularly in regions where digital language learning remains an emerging field.

References:

1. Acquah, E. O., & Katz, H. T. (2019). Digital game-based L2 learning outcomes for primary through high-school students: A systematic literature review. *Computers & Education*, *143*, 103667–103667. https://doi.org/10.1016/j.compedu.2019.103667
2. Ahmed, H. M. M., El-Sabagh, H. A., & Elbourhamy, D. (2025). Effect of Gamified, Mobile, Cloud-Based Learning Management System (GMCLMS) on student engagement and achievement. *International Journal of Educational Technology in Higher Education*, *22*(1). https://doi.org/10.1186/s41239-025-00541-1
3. Al-Dosakee, K., & Özdamlı, F. (2021). Gamification in Teaching and Learning Languages: A Systematic Literature Review. *Revista Romaneasca Pentru Educatie Multidimensionala*, *13*(2), 559–577. https://doi.org/10.18662/rrem/13.2/436
4. Alghamdy, R. Z. (2023). Pedagogical and Ethical Implications of Artificial Intelligence in EFL Context: A Review Study. *English Language Teaching*, *16*(10), 87–87. https://doi.org/10.5539/elt.v16n10p87

5. Alhawsawi, S., & Alzaid, F. (2025). Systematic review of virtual reality's uses on vocabulary learning in higher education. *Smart Learning Environments*, *12*(1). https://doi.org/10.1186/s40561-025-00414-0
6. Benitez-Correa, C., Quiñonez-Beltran, A., & Morocho-Cuenca, E. (2025). Implementation of Gamification as an Active Methodology to Enhance Motivation and Academic Performance in EFL Learners. *World Journal of English Language*, *16*(2), 203–203. https://doi.org/10.5430/wjel.v16n2p203
7. BOERU, M. (2023). Aspects of gamification in the ESP program for maritime students. *Scientific Bulletin of Naval Academy*, *1*, 83–88. https://doi.org/10.21279/1454-864x-23-i1-009
8. Boudadi, N. A., Gutiérrez-Colón, M., & Usart, M. (2024). A Gamified Learning Environment (Moodle) to Enhance English Language Learning at University Level. *International Journal of Instruction*, *17*(4), 483–502. https://doi.org/10.29333/iji.2024.17427a
9. Çelık, F., & Ersanlı, C. Y. (2022). The use of augmented reality in a gamified CLIL lesson and students' achievements and attitudes: a quasi-experimental study. *Smart Learning Environments*, *9*(1). https://doi.org/10.1186/s40561-022-00211-z
10. Chen, Y. (2024). Enhancing Language Acquisition: The Role of AI in Facilitating Effective Language Learning. In *Advances in Social Science, Education and Humanities Research/Advances in social science, education and humanities research* (pp. 593–600). https://doi.org/10.2991/978-2-38476-253-8_71
11. Cömert, Z. (2025). Designing Ethical and Equitable AI-Supported Educational Games. In *Advances in computational intelligence and robotics book series* (pp. 93–104). IGI Global. https://doi.org/10.4018/979-8-3373-1827-1.ch005
12. Dečman, N., Rep, A., & Titgemeyer, M. (2022). Who is more eager to use Gamification in Economic Disciplines? Comparison of Students and Educators. *Business Systems Research Journal*, *13*(2), 96–116. https://doi.org/10.2478/bsrj-2022-0017
13. Dehghanzadeh, H., Fardanesh, H., Hatami, J., Talaee, E., & Noroozi, O. (2019). Using gamification to support learning English as a second language: a systematic review. *Computer Assisted Language Learning*, *34*(7), 934–957. https://doi.org/10.1080/09588221.2019.1648298
14. Esteban, A. J. (2024). Theories, Principles, and Game Elements that Support Digital Game-Based Language Learning (DGBLL): A Systematic Review. *International Journal of Learning Teaching and Educational Research*, *23*(3), 1–22. https://doi.org/10.26803/ijlter.23.3.1
15. Hakimi, L., Eynon, R., & Murphy, V. A. (2021). The Ethics of Using Digital Trace Data in Education: A Thematic Review of the Research Landscape. *Review of Educational Research*, *91*(5), 671–717. https://doi.org/10.3102/00346543211020116
16. Hao, T., Winn, J., & Qiang, Q. (2023). Unlocking potential: Systematic review the use of gamification in leadership curriculum. *Education and Information Technologies*, *29*(10), 12305–12346. https://doi.org/10.1007/s10639-023-12332-0

17. Huseinović, L. (2023). The Effects of Gamification On Student Motivation And Achievement In Learning English As A Foreign Language In Higher Education. *MAP Education and Humanities*, *4*(1), 10–36. https://doi.org/10.53880/2744-2373.2023.4.10
18. Ismailova, M. (2025). Improving Learners' Engagement Through Game-Based Techniques in Language Education. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.17907561
19. Jane, O. C., Ezeonwumelu, C. G., Barah, C. I., & Jovita, U. N. (2024). The Role of Gamification in Enhancing Foreign Language Education: Strategies, Benefits, and Case Studies. *Newport International Journal of Research in Education (NIJRE)*, *4*(1), 33–38. https://doi.org/10.59298/nijre/2024/41133388
20. Joseph, O. B., & Uzondu, N. C. (2024). Integrating AI and Machine Learning in STEM education: Challenges and opportunities. *Computer Science & IT Research Journal*, *5*(8), 1732–1750. https://doi.org/10.51594/csitrj.v5i8.1379
21. Khasawneh, M. A. S. (2023). Beyond digital platforms: Gamified skill development in real-world scenarios and environmental variables. *International Journal of Data and Network Science*, *8*(1), 213–220. https://doi.org/10.5267/j.ijdns.2023.10.002
22. Korkut, N. (2025). K–12 Eğitiminde Yapay Zekâ Destekli İngilizce Dil Öğretimi: Dört Beceri, Kelime ve Dilbilgisi Odaklı Bir Yaklaşım. *DergiPark (Istanbul University)*. https://dergipark.org.tr/tr/pub/babur/issue/92547/1684165
23. Laksanasut, S. (2025). Gamification in ESL/EFL Education: Transforming Language Learning and Teaching Through Play. *TESOL and Technology Studies*, *6*(1), 16–29. https://doi.org/10.48185/tts.v6i1.1562
24. Landázuri, M. B. D., Velásquez, E. M. T., Cruz, S. A. R., & Quiñonez, M. P. C. (2025). Technology and Gamification in English Language Learning. *Revista Multidisciplinar de Estudios Generales*, *4*(2), 352–373. https://doi.org/10.70577/reg.v4i2.98
25. Liu, J. (2024). Enhancing English Language Education Through Big Data Analytics and Generative AI. *Journal of Web Engineering*, 227–250. https://doi.org/10.13052/jwe1540-9589.2322
26. Metruk, R., & Zimenová, I. (2025). THE USE OF DIGITAL TECHNOLOGIES IN THE PROCESS OF LEARNING VOCABULARY. *Information Technologies and Learning Tools*, *109*(5), 69–86. https://doi.org/10.33407/itlt.v109i5.6284
27. Murphy, A. (2025). Adaptive Gamification and AI-Powered Feedback in Primary English Education: A Personalized Learning Approach. *International Journal of Scientific Research and Management (IJSRM)*, *13*(10), 4405–4424. https://doi.org/10.18535/ijsrm/v13i10.el04
28. Muryani, R. N., & Yunus, M. (2024). STUDENTS' DIGITAL VOCABULARY LEARNING: EXPERIENCES, BARRIERS, AND ADAPTIVE STRATEGIES EXPLORATION. *English Review Journal of English Education*, *12*(1), 31–42. https://doi.org/10.25134/erjee.v12i1.9328
29. Namaziandost, E., & Çakmak, F. (2025). Impact of AI-generated storytelling vs. gamified learning on vocabulary retention and engagement in CALL environments. *Computers and Education Artificial Intelligence*, *9*, 100505–100505. https://doi.org/10.1016/j.caeai.2025.100505

30. Nguyen, A. T., Nguyễn, T. T., Thảo, L. T., Yen, P. H., Thùy, P. T., Anh-Thu, H. T., & Tra, N. H. (2023). Effects of Memrise on Vietnamese EFL Students' Vocabulary: A Case Study at a College in a Rural Area. *The Electronic Journal of E-Learning*, *21*(5), 450–460. https://doi.org/10.34190/ejel.21.5.3066
31. Nguyen, L. D. (2025). Beyond the game: The theoretical exploration of gamification in foreign language teaching. *Proceedings of the International CALL Research Conference*, *2025*, 91–97. https://doi.org/10.29140/97817637116240-13
32. Nozhovnik, O., Harbuza, T., Тесленко, Н., Okhrimenko, O., Залізнюк, В., & Дурдас, А. (2023). Chatbot Gamified and Automated Management of L2 Learning Process Using Smart Sender Platform. *International Journal of Educational Methodology*, *9*(3), 603–618. https://doi.org/10.12973/ijem.9.3.603
33. Onesi-Ozigagun, O., Ololade, Y. J., Eyo-Udo, N. L., & Ogundipe, D. O. (2024). REVOLUTIONIZING EDUCATION THROUGH AI: A COMPREHENSIVE REVIEW OF ENHANCING LEARNING EXPERIENCES. *International Journal of Applied Research in Social Sciences*, *6*(4), 589–607. https://doi.org/10.51594/ijarss.v6i4.1011
34. Polyzi, P., & Moussiades, L. (2023). An artificial vocabulary learning assistant. *Education and Information Technologies*, *28*(12), 16431–16455. https://doi.org/10.1007/s10639-023-11810-9
35. Quba, A. A., Eid, O. A. A.-H., Hasan, G. A., & Herz, J. A. (2024). The Effect of Utilizing Gamification in Enhancing English Language Skills in University Settings. *World Journal of English Language*, *14*(4), 428–428. https://doi.org/10.5430/wjel.v14n4p428
36. Rodríguez-Escobar, C., Cuevas-Lepe, J., & Maluenda-Parraguez, L. (2023). *Assessing the Effectiveness of Wordwall.net as a Vocabulary Learning Tool: Pre-Service EFL Teachers' Perspectives*. https://doi.org/10.7176/jep/14-31-04
37. Salmanova, S. (2025). Gamification and AI in Language Learning – A New Era of Digital Education. *Acta Globalis Humanitatis et Linguarum*, *2*(1), 262–269. https://doi.org/10.69760/aghel.02500134
38. Samur, Y., & Cömert, Z. (2024). Gamification in Education in the Age of Artificial Intelligence. In *Advances in educational marketing, administration, and leadership book series* (pp. 289–308). IGI Global. https://doi.org/10.4018/979-8-3693-4119-3.ch011
39. Selvam, M., & Vallejo, R. G. (2025). Ethical and Privacy Considerations in AI-Driven Language Learning. *LatIA*, *3*, 328–328. https://doi.org/10.62486/latia2025328
40. Shang, X. (2025). Mapping the integration of gamification into foreign language learning in E-learning settings: A bibliometric analysis. *Results in Engineering*, *28*, 108452–108452. https://doi.org/10.1016/j.rineng.2025.108452
41. Shen, Z., Lai, M., & Wang, F. (2024). Investigating the influence of gamification on motivation and learning outcomes in online language learning. *Frontiers in Psychology*, *15*, 1295709–1295709. https://doi.org/10.3389/fpsyg.2024.1295709
42. Taqdir, T. (2024). Global Trends and Impacts of Gamification in Language Learning: A Bibliometric Analysis. *Lingua Cultura*, *18*(2), 205–215. https://doi.org/10.21512/lc.v18i2.12338

43. Thurairasu, V. (2022). Gamification-Based Learning as The Future of Language Learning: An Overview. *European Journal of Humanities and Social Sciences*, *2*(6), 62–69. https://doi.org/10.24018/ejsocial.2022.2.6.353
44. To'rayeva, M., & Elmurodov, U. (2026). GAMIFICATION IN LANGUAGE LEARNING. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.18159746
45. Trinh, T. H., Nguyen, M. N., & Tran, T. T. H. (2022). Teachers and Students' Perceptions of Using Digital Games in Improving Vocabulary at Non-English-majored Class. *AsiaCALL Online Journal*, *13*(5), 112–131. https://doi.org/10.54855/acoj.221358
46. Yaccob, N. S., Rahman, S. F. Abd., Mohamad, S. N. A., Rahim, A. A. A., Rashid, K. K. A., Aldaba, A. M. A., Yunus, M. M., & Hashim, H. (2022). Gamifying ESL Classrooms through Gamified Teaching and Learning. *Arab World English Journal*, *8*, 177–191. https://doi.org/10.24093/awej/call8.12
47. Żammit, J. (2022). Is mobile game-based learning effective for international adults learning Maltese? *Asian-Pacific Journal of Second and Foreign Language Education*, *7*(1). https://doi.org/10.1186/s40862-022-00157-2
48. Zhang, S., & Hasim, Z. (2023). Gamification in EFL/ESL instruction: A systematic review of empirical research. *Frontiers in Psychology*, *13*, 1030790–1030790. https://doi.org/10.3389/fpsyg.2022.1030790
49. Zhou, G. (2024). Navigating the Future Landscape of Gamified Education. *SHS Web of Conferences*, *187*, 2005–2005. https://doi.org/10.1051/shsconf/202418702005
50. Zolfaghari, Z., Karimian, Z., Zarifsanaiey, N., & Farahmandi, A. Y. (2025). A scoping review of gamified applications in English language teaching: a comparative discussion with medical education. *BMC Medical Education*, *25*(1), 274–274. https://doi.org/10.1186/s12909-025-06822-7
51. Zukhra, M. (2025). EPLORING THE IMPACT OF GAMIFICATION ON ENGLISH LANGUAGE TEACHING AND LEARNING. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.17894048
52. Никипорець, С., Кот, С., Гадайчук, Н., Мельник, М., & Бойко, Ю. (2024). INNOVATIVE PEDAGOGICAL STRATEGIES FOR UTILIZING ONLINE PLATFORMS IN FOREIGN LANGUAGE ACQUISITION. *Актуальні питання у сучасній науці*. https://doi.org/10.52058/2786-6300-2024-5(23)-730-743